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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/309,155	05/10/1999	MATTHEW ZAVRACKY	KPN97-04A5	7157

21005 7590 06/03/2002

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133

EXAMINER

WU, XIAO MIN

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 06/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/309,155

Applicant(s)
Zavracky et al.

Examiner
Xiao Wu

Art Unit
2674



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 15, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 15 6) ☐ Other: _____

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1. The request filed on 5/15/2002 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/309,155 is acceptable and a CPA has been established. An action on the CPA follows.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of "the flashing a light source commences prior to commencing of clearing the image from the display" is contradictory to claim 1 since the claim 1 recites clearing the image from the display; flashing the light source in a sequential order.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Stewart et al (US Patent No. 5,337,068).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 1-7, 12-13, 15, 19-23, 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al (US Patent No. 5,337,068).

As to claims 1, 12-13, 19-23, 29-33, Stewart discloses a method of displaying an image comprising the steps of: providing a matrix liquid crystal display; writing an image to the display; clearing the image from the display; flashing a light source; and repeating the writing; clearing and flashing to producing a second image (see Fig. 6). It is noted that Stewart does not specifically disclose the matrix liquid crystal display having array of at least 75,000 pixel electrodes and an active area of less than 20 mm². However, the number of the pixels and the size of the display are considered as an obvious design choice since each pixel of the active matrix LCD is controlled by a TFT switch which is build on a substrate and the pixel can be made in a very small size.

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As to claim 2, Stewart discloses the steps of allowing the liquid crystal image to rotate towards an equilibrium prior to flashing the light source (column 11, line 57 to column 12, line 2).

As to claim 3, Stewart discloses the flashing of the light source ends before the writing of the next image (see Fig. 6).

As to claim 4, Stewart discloses the flashing of the light source continuous for a specific time period of the writing of the next image (Fig. 6).

As to claim 5, Stewart discloses the liquid crystal display is an active matrix LCD having a plurality of pixel electrodes, counter electrode and an interposed liquid crystal (see Fig. 2b).

As to claims 6 and 7, Stewart discloses the step of clearing the image from the display comprising the step of initializing the pixel electrodes to a set voltage (Fig. 6).

As to claim 15, Stewart does not specifically disclose the flashing rate is 165 subframes per second. However, it would have been obvious to one of ordinary skill in the art to have designed a suitable range of the flashing rate in order to avoid a flickering.

8. Claims 14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al (US Patent No. 5,337,068) in view of Ross (US Patent No. 4,917,469).

It is noted that Stewart does not disclose sensing the properties of the liquid crystal. Ross is cited to teach a LCD device with a sensor for sensing the liquid crystal. It would have been obvious to one of ordinary skill in the art to have modified Stewart with the features of the temperature sensor as taught by Stewart because the temperature sensor can provide a feedback signal to stabilize the LCD without a temperature effect.

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9. Claims 8-11, 24-28, 34-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al (US Patent No. 5,337,068) in view of Kaneko (US Patent No. 6,151,004).

Note the discussion of Stewart above. Stewart does not specifically disclose switching the applied voltage to the counter electrode panel after every subframe. Kaneko is cited to teach a LCD device with a light source control similar to Stewart. Kaneko further discloses the two voltage levels are applied to counter electrode after every subframe (see Fig. 3). It would have been obvious to one of ordinary skill in the art to have modified Stewart with the features of the variable control for the counter electrode as taught by Kaneko because the AC driving can prolong the life of the LCD.

10. Applicant's arguments filed 1/29/2002 have been fully considered but they are not persuasive.

Applicant argues that Stewart does not disclose the matrix liquid crystal display having array of at least 75,000 pixel electrodes and an active area of less than 20 mm². This argument is not persuasive because the Stewart's LCD is an active matrix LCD and each pixel of the active matrix LCD is controlled by a TFT switch which is build on a substrate and the pixel can be made in a very small size. Therefore, the number of the pixels and the size of the display are considered as an obvious design choice. Furthermore, applicant argues that applicant's claim 8-11 are entitled to a priority date that predates April 16, 1998 and Kaneko is disqualified as prior art. This argument is not persuasive since this application is a CIP and has an effective filing date on May 10, 1999.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiao Wu whose telephone number is (703) 305-4721.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA.,
Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377

xw

May 31, 2002


XIAO WU
PRIMARY EXAMINER
ART UNIT 2674